The Impacts of Covid-19 on Travel Patterns in the UK

Second Phase Research Findings

1 June 2020

Feedback and contributions

We welcome feedback and contributions towards this important research effort. Details can be discussed with our research leader below.
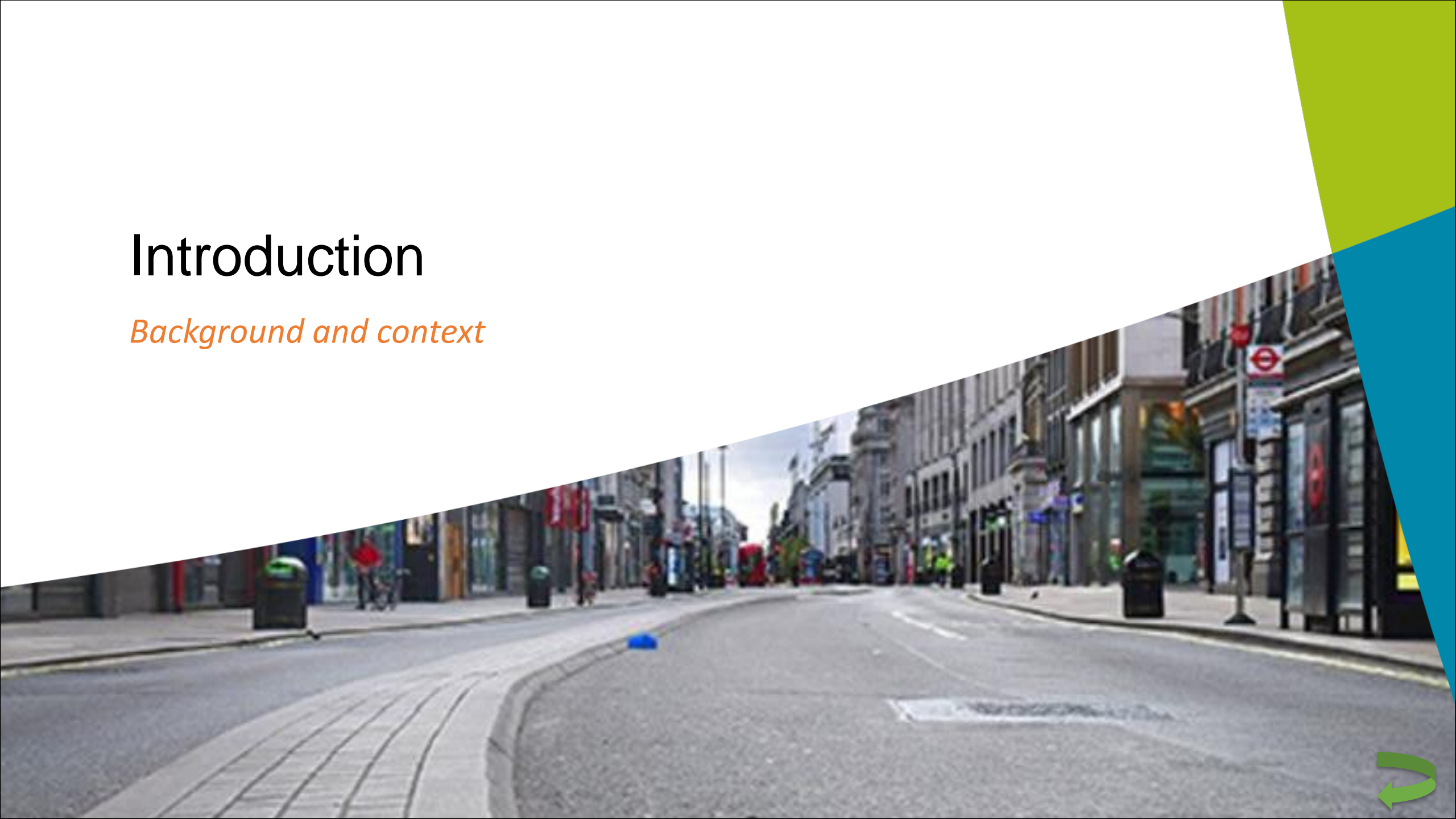

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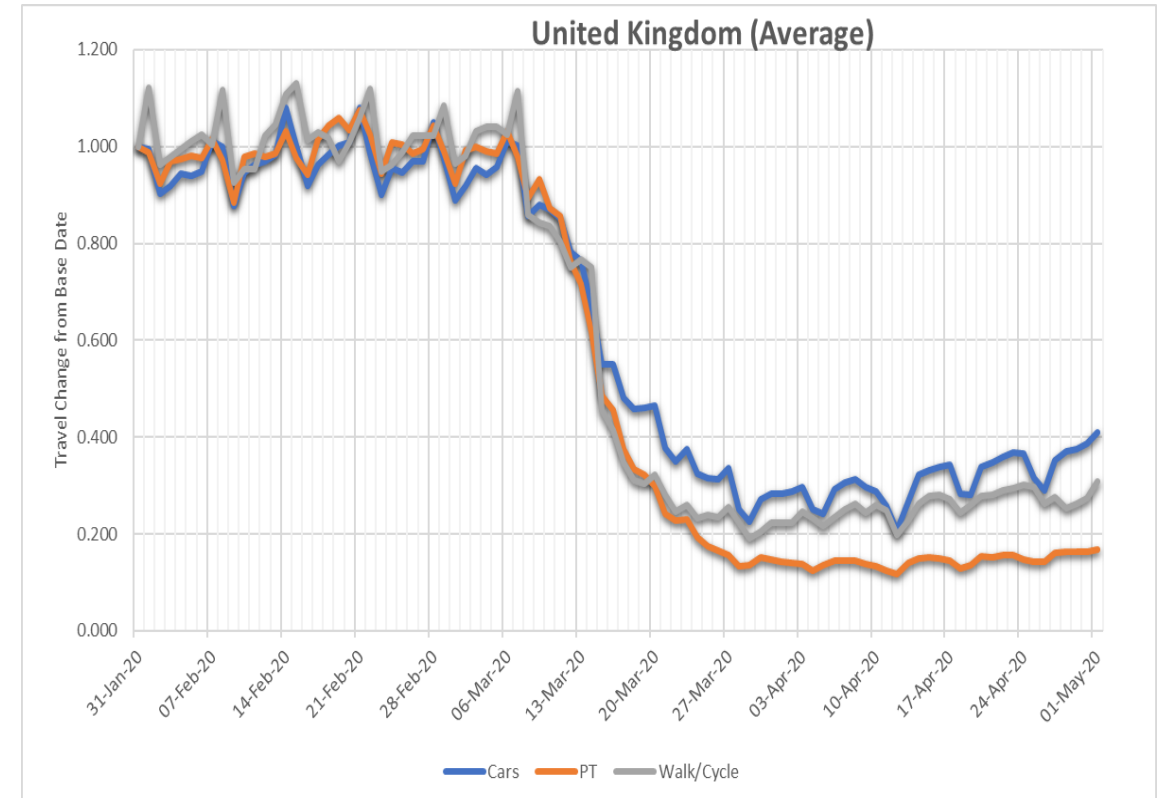# Introduction

Background and context

Introduction

Background and context

Since the UK went into lockdown Royal HaskoningDHV has been researching the effects of Covid-19 on travel patterns, to help us better understand the issues faced by these unprecedented conditions we are now experiencing.

Our first research note, published on 7 May 2020, gathered data on multi-modal travel patterns and utilised our state-of-the-art digital transport planning techniques to identify the time-series changes to travel patterns across the UK. These were measured and quantified by different regions as well as the total UK travel situation. A major conclusion from our data analysis was that public transport has been hit the hardest, followed by walking and cycling. It was also noted that there is the risk of a potential increase in car trips, including potentially significant single-occupancy car trips. These dramatic changes have serious implications for sustainable travel including impacts to air quality and revenue support for public transport services.

Our research has identified a set of policy tools which must be pursued to alleviate the above impacts. In this second note, we present a range of policy options which we believe would help to shape the future. These are presented in this research paper in a common strategy framework which allows transport planners, operators and authities to work together to deliver co-ordinated and effective measures to assist the UK out of the lockdown restrictions, without jepeordising the previous sustainability gains made while also capitalising on the opportunity provided by the Covid-19 transition process.

Figure 1 – Travel changes averaged across the whole UK (2020) since the Covid-19 lockdown

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Structure of this research paper

1. Introduction
Provides the context of this second research paper.

2. Mobility in transition
Describes how mobility is changing and how we must look at the needs of travellers.

3. Policy intervention measures framework
Outlines measures to enhance the traveller's experience and boost sustainable mobility

4. Strategy and programmes
Discusses the approach to successfully implement the mobility framework identified

5. Emerging findings
Summarises the emerging findings from the reviews of the case studies and lessons learned

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Mobility In Transition

Connecting people and places

Mobility in transition

Connecting people and places

Even before the effects of Covid-19, mobility was already undergoing a major transformation due to a combination of changes in people's lifestyles, connected business practices and disruption from new technologies, which is what is defined as *Mobility In Transition*. In fact, we could argue that Covid-19 is another development in this on-going transformation; it is no secret that the pre-Covid-19 mobility system is no longer able to meet demand in the traditional way.

Now the lockdown has heightened the issues faced by our mobility needs, our towns, cities and rural areas must remain accessible without compromising residents' quality of life and business activities, all while striving for environmental sustainability and the return of economic activity. As we transition out of lockdown, our mobility needs require careful management which will also entail further customisation. This will entail a balanced approach between the needs of the individual while also delivering at a macro-societal level. We call it **Smart Mobility** – working smarter, not harder!

As an example, let us look at the case study of the city of Belfast in Northern Ireland. Like other main cities it has seen a seismic shift in mobility patterns both before Covid-19 and even more so during the lockdown. Belfast is now seeing a dangerous trend towards increased single-occupancy car trips and depressed public transport journeys as the lockdown restrictions are slowly starting to be lifted.

A significant increase in car traffic will raise serious implications for the city of Belfast and therefore we have looked at what would happen if current observed trends were to continue and how a more positive outcome could be provided to the city. This is set out overleaf.

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Case Study of the City of Belfast

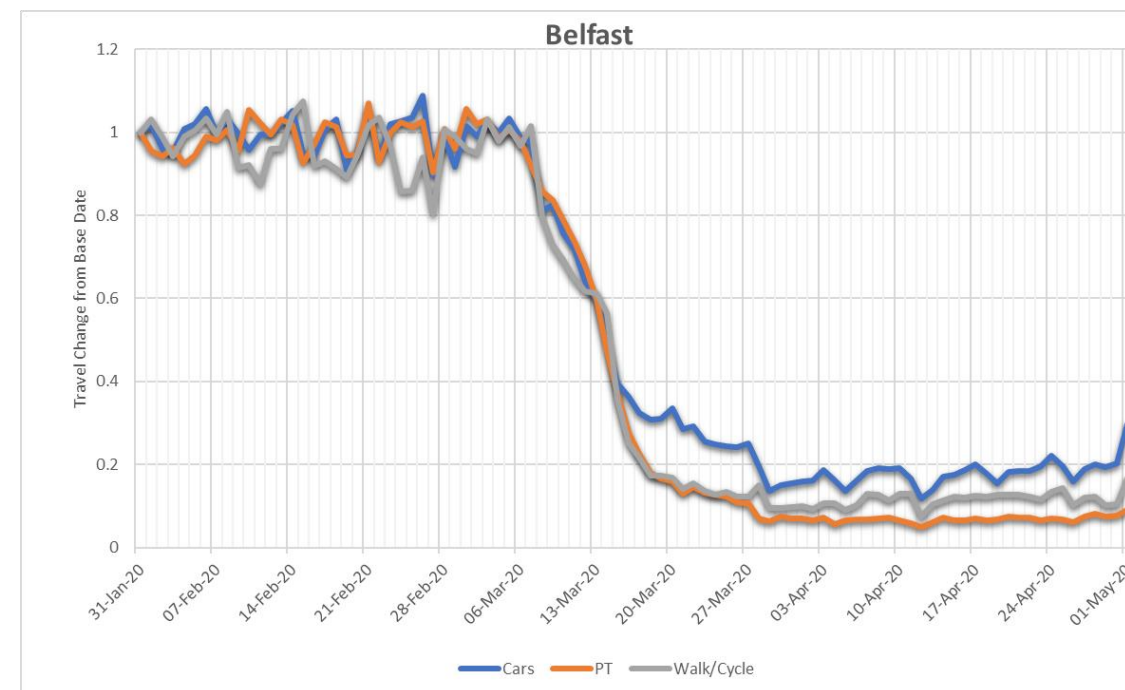## *Testing the impacts of observed mobility trends*

In order to test the effectiveness of potential mobility interventions, we have modelled the impact on the travel conditions in the city of Belfast using our digital analysis models and data supplied by the transport authority. Figure 2 shows the recent travel patterns in the city.

The impact on society of non-intervention (i.e. do nothing) was analysed, in which no specific new measures are put in place and the mobility situation evolves according to the observed trends as Belfast moves out of lockdown. These were then compared to a strategy of implementing a range of identified interventions in this research (i.e. do strategy), which are described in the rest of this research paper.

We measured the effectiveness of both the above scenarios on the socio-economic impacts derived from the effects on each passenger-km travelled by the different means of transport, based on the procedures set out in the *Handbook on the External Costs of Transport* (DG for Mobility and Transport, EU Move Research, 2019). At the present state of research, economic estimates can be made with reasonable accuracy on travel time, severance effects due to increased traffic, climate change, local air pollution, road traffic noise and safety.

The marginal cost of congestion was calculated linearly in proportion to the change in passenger-km travelled by car compared to public transport, active travel (walk/cycle) and tele-working or trip suppression. This can be considered conservative in relation to the real situation, as the effects of road congestion increase non-linearly as kilometres travelled increase.

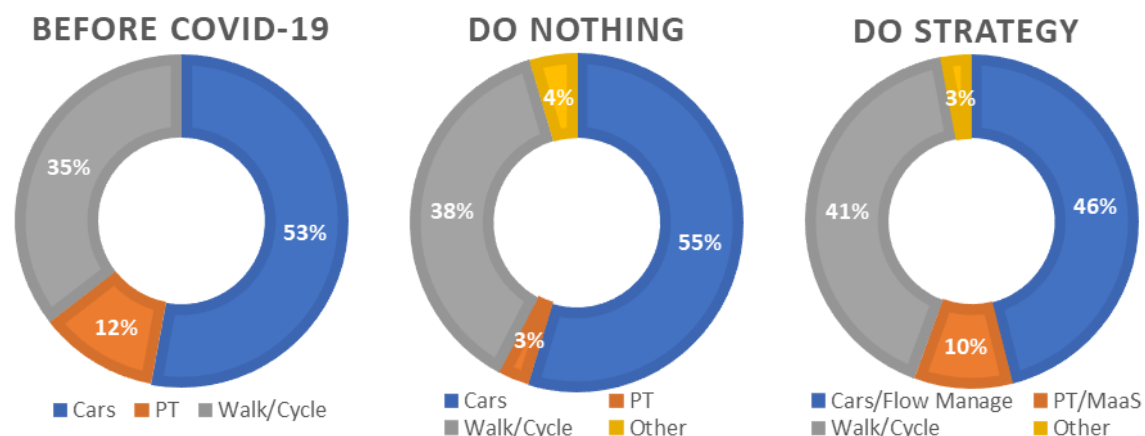**Figure 2 – Travel Patterns in the City of Belfast**

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Case Study of the City of Belfast

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## *Optimising competing demands and improving mobility*

In the **Do Nothing scenario**, the modelling shows a major shift from public transport users would be expected (see Figure 3). This will have serious consequences including increased congestion, safety issues and environmental impacts. In a realistic scenario, it is not plausible that every single journey would be shifted from public transport to private cars, hence the modelling shows a share of public transport journeys would shift to walking and cycling, and another share would simply not occur (e.g. working from home, accessing online services without travelling, trip suppression, etc). The modelling analysis predicts there would be a net social **negative impact** of circa –£4.1 billion per annum (see Figure 4), suggesting this represents a risky option not only for the public transport sector but for the entire city and the local economy.

For the **Do Strategy scenario**, the modelling shows a rebalance to more sustainable travel patterns and smart mobility (see Figure 3). In particular, flow management techniques significantly reduce socio-economic impacts by making better use of existing assets and optimising road space allocations. In reality, it will not be possible to return all unsatisfied trips to public transport due to identified social distancing measures. However, the analysis suggests that the additional active travel and smart mobility measures would mitigate the negative effects of the increased car travel. Finally, it must be remembered that, in the first months of the transition out of full lockdown, public transport users will be mainly workers and at a later stage students, and both of these groups can easily be attracted to forms of active mobility if adequate infrastructure and incentives are made available. The modelling analysis shows there would be a net social **positive benefit** of almost £2.7 billion per annum (see Figure 4), providing a significant improvement over pre-Covid-19 conditions and offering a more sustainable future for the city of Belfast.

Figure 3 – Changes in Mode Shares in Belfast

Figure 4 – Changes in Transport Impacts in Belfast
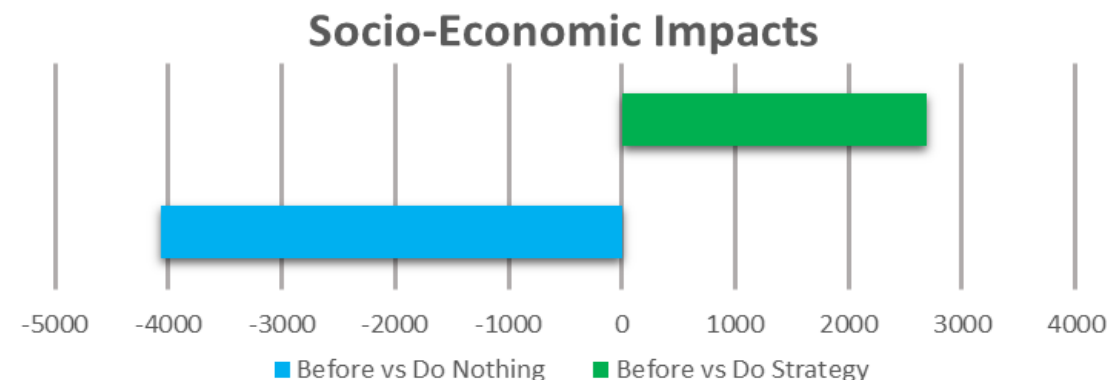
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Policy intervention measures framework

Applying the right tools to sustainably transition out of lockdown

Policy intervention measures framework

Applying the right tools to sustainably transition out of lockdown

It is clear from our case study of the city of Belfast that there are significant issues at stake. If we let observed trends continue then the negative impacts identified in Belfast could be extrapolated all across the UK. Similarly, the potential benefits could also be applied enabling towns and cities to optimise their transport networks today and shape the mobility of tomorrow.

There are a range of positive steps which can be achieved by bringing together cutting-edge technology with tailored strategy and expert implementation. The various policy interventions identified in our research can be listed and prioritised as follows:

- People flows solutions
- Cycling measures
- Mobility as a Service
- Securing public transport services
- Automated and electric vehicles
- Smart places
- Flow management systems

Each of the above interventions will need to be packaged and tailored for specific locations to align with local characteristics. Specific details of the above framework measures are discussed in the following section, along with some case studies of similar interventions successfully implemented.

However, the new mobility transition process is a journey that we cannot undertake alone. It requires both the public and private sectors to unite in new systems of collaborative partnerships, new forms of organisation, new types of planning and new concepts of mobility services.

These sustainable transport planning measures will then need to be delivered under a focussed strategy and programmes, which is also discussed later in this research paper.

Implementation will require a three-pronged approach featuring stakeholder collaboration at its centre to shape the emerging new mobility system, as summarised below.

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People flows: keeping people flowing using data-driven solutions

Most of the UK's cities are already congested and will need to become much smarter and better equipped as urban populations continue to grow. If not actioned, the impact can often be an increase in stress and pressure on public spaces, infrastructure and mobility – as well as threatening people's safety and wellbeing.

Measures need to be taken before and during the transition out of Covid-19 full lockdown to manage the flow of people in a town or city so that visitors and inhabitants can co-exist in a safe and comfortable environment, respecting social distancing aims. With new technology we can combine our domain knowledge, data science and service design to create effective *crowd management* solutions. We can effectively process data into insights and provide practical solutions so as to better manage our shared spaces. And given these are often low-cost and/or based on limited infrastructure, then there are clearly some 'quick-wins' to be made - vitally important given the rapid changing Covid-19 climate.

As a result of optimising people flows, our towns and cities can better adapt to the changing needs of visitors and inhabitants in our urban centres, enhancing comfort and improving safety. People flows solutions should include a human-centric design where we harness data to organise shared spaces to adapt to the changing needs of travellers.

Case Studies

An example of a successful people flows system in action is in Amsterdam. Overcrowding is a serious issue in some parts of the city at peak times. A real-time Crowd Monitoring System Amsterdam (CMSA) was developed to help alleviate the pressure of crowds in and around key areas of the city which attract huge amounts of visitors including tourist areas, shopping streets and event locations such as the Arena Boulevard. Using mobile phone Wi-Fi signals, smart cameras and open source data, city leaders can assess the level of crowding and, when necessary, re-route pedestrians away from these areas. Information is relayed to on-street pedestrians using an array of electronic signs, smartphone apps and on-site police or stewards for larger special events.

CMSA has also recently become a signatory to the Tada open data programme which aims to shape a responsible digital city in Amsterdam, which is a testimony to the level of trust people have learned to accept from the system and is also another measure of its success.

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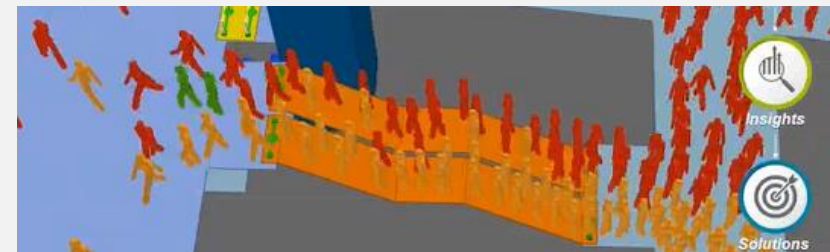
Cycling: for better urban mobility

In an urban environment impacted by Covid-19, the bicycle is becoming an ever more popular alternative to the car – and even to public transport. To embed cycling into a multi-modal transport network, a tailored and collaborative approach is vital.

The Government has brought forward plans to invest £2bn in walking and cycling, to relieve the pressure on public transport.

We can integrate hardware, software and orgware to enable cycling to flourish in our urban and rural areas. Whether that is ensuring that a city has the right infrastructure in place to cycle safely, foster safe cycling behaviour and acceptance, or to develop policies to fund cycling programmes across cities. Public and private sector organisations need to work collaboratively to deliver safe cycling for a sustainable network.

By modernising and normalising cycling, we can help ensure it becomes a sustainable mode of transport in our towns and cities for years to come.

Case Studies

In the early weeks of the Covid-19 lockdown, Leicester City Council have created over 2km of temporary cycle routes along a number of key roads, taking advantage of the substantial reduction in general traffic, and also providing maximum space for pedestrians and cyclists to travel at safe distances. The work involved putting cones out to mark off one lane of the carriageway to create a safer route, especially for key workers travelling to and from important sites like the Leicester Royal Infirmary. These temporary cycle routes have also been selected to link up existing cycling tracks and there are plans for a more permanent cycle routes as part of the landscaping works linked to a new hotel and car parking scheme being carried out as part of the development planning process.

Similar schemes have been introduced elsewhere in Europe, including Germany where authorities have temporarily enlarged city cycling and walking routes to allow riders and walkers to observe social distancing more easily while the streets are relatively free of other traffic.

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Mobility as a Service: optimising transport to enhance the customer experience and boost sustainable mobility

Mobility as a Service (MaaS) is revolutionising the way we travel. By integrating various forms of transport into a single mobility service, MaaS is able to assist us in adapting to our new passenger behaviour needs coming out of lockdown.

With MaaS, we are able to connect data infrastructure with intelligence about each individual passenger's journey. The result? A seamless and enhanced travel experience.

Not only this, but MaaS also reduces congestion and limits the use of public space for transport, all while offering people greater choice in the way they travel. As a result, we can free up more urban space, satisfy passengers and bring about greater innovation together.

Case Studies

Transport for the West Midlands and Whim (operated by the MaaS Global company) launched in Birmingham in Spring 2018 and has been a tremendous success connecting services provided by Gett taxis, National Express buses, Midland Metro trams, local train services, city bikes, rental cars and car club vehicles. Customers have a choice of either pay-per-ride or monthly subscription where customers pre-purchase 'mobility packages'. Whim has already been launched in Helsinki, Finland (winter 2017) and in Antwerp, Belgium (autumn 2018) as well as recently in Vienna, Austria (winter 2019). A study of the Whim MaaS showed before Whim approximately 48% of trips by metropolitan area residents were made by public transport but Whim users ride public transport more, at 63% of trips, demonstrating MaaS users are more likely to ride public transport than their counterparts in the metropolitan area.

The subscription-based approach is also part of Sweden's Samtrafiken scheme (originally UbiGo) which includes Västtrafik public transport, Sunfleet car sharing, Hertz car rentals, Taxi Kurir taxis, and Styr & Ställ bike sharing.

The pay-as-you-go model, whereby travellers pay for the services they consume, has similarities with London Oyster and Contactless payment including the use of 'capped' daily and weekly fares. An alternative variation of the approach is Hannovermobile initiated by Üstra (Hannover's Public Transport Authority) which for a relatively low monthly fee provides discounted travel by rail, taxi and car sharing.

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Securing public transport services

The Covid-19 lockdown has produced structural changes in peoples' attitudes and practises for some time to come.

The data analysis hints at an emerging phenomenon known as **'transport distancing'**, whereby some travellers would rather be in their own personal car than risk infection or transmission of Covid-19 by using public transport. This is not entirely surprising given the fact that public transport involves travelling in shared spaces, and some people prefer to isolate themselves.

This will have serious implications for the government and public transport operators, who have already seen significant falls in passenger revenues, as well as having the potential to increase congestion.

Public transport operators will need to convince passengers that they will be safe from future waves of the virus. New measures could include:

- Increase seating spaces between passengers
- Isolate and shield drivers from passengers
- Extend service times to allow passengers to stagger their travel times
- Apply only cashless payment methods
- Passengers should be encouraged to wear face masks during their journey
- Operators should disinfect vehicles between services and provide hand sanitisers at key locations at stops/stations

Clearly, some of the above measures will reduce capacity of public transport services and transport operators and authorities will need to expand services in the short to medium term to accommodate demand.

Case Studies

Transport for London (TfL) have implemented extensive changes to their bus and underground services. Social distancing, sanitisation and face masks are the three crucial safety elements that TfL hopes will help to encourage people back to public transport during the lockdown and afterwards.

Face masks have become the norm for public transport staff as a consensus over their efficacy in protecting public health emerges among operators and transport authorities.

TfL has introduced cashless payments on underground services and free travel on buses. Access to buses is via the middle doors as the door next to the driver is kept closed to safeguard staff. Service running times have been extended to allow passengers to stagger their travel times with signs suggesting services between 0730hrs to 0900hrs are recommended for essential workers.

Seating spaces between passengers have been increased with a recommendation of up to four seats apart, and passengers are encouraged to wear face masks during their journey as well as wash their hands afterwards.

Vehicles are disinfected between service-running and hand sanitisers have been provided at key stations and large stops with plans to further roll-out more sanitisers to other locations.

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Automated and electric vehicles: an integrated approach to using human-centred technology

Self-driving cars are now a reality – but ensuring successful and safe deployment is key to wider adoption. These smart vehicles can make traffic safer, more efficient and sustainable. As transport planners, our role is to leverage those benefits while mitigating risks.

And when combined with electric vehicles (EVs) there will be significant benefits to reducing air pollution and helping the UK towards meeting its climate emergency targets. Therefore, we should take an integrated systems approach to embed automated and electric vehicles into current and future traffic systems.

We should deploy a three-pronged approach which combines trust and acceptance, network and road design, and control and information systems to ensure the sustainable development of smart vehicles and their use on our roads. That way, we can help enhance road safety in the long-term.

To further improve awareness, knowledge and acceptance of smart vehicles, we should connect multiple stakeholders to ensure safe and effective use. Only through this close collaboration are we able to accelerate the impact and introduction of smart vehicles safely and securely.

Case Studies

A 2018 survey by BMW of car sharing clubs by 18 operators across 10 countries showed that operators plan to switch to buying 70% of their replacement cars as EVs. This is due to a combination of reasons including financial incentives, the falling cost of maintenance and running costs, new regulations and a desire to demonstrate their social environmental responsibilities. Given the average replacement life is 4 years this means that by 2025 it is reasonable to expect circa 70% of BMW's London-supported car clubs could be made up of EVs.

This is further reinforced by the UK Government's policy to restrict new vehicle sales in the UK to 50% being conventional petrol and diesel cars and vans by 2030 and ultimately 0% by 2035 (recently reduced from 2040). In fact, Deloitte has estimated that the market will reach a 'tipping point' in 2022 – when the cost of ownership of EVs will be on par with their internal combustion engine (ICE) counterparts – resulting in a faster acceleration in demand growth from 2022 to 2030. In the UK over the last three years, the average uptake rate of EV ownership has been 59% per annum resulting in an exponential growth in EVs across the UK.

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Smart places: combining the physical and digital to create smart environments

Today our world faces some of its greatest challenges – among them Covid-19, climate change, energy transition and population increase. Technology and smart mobility provides many answers to how we might adapt to these issues. Without a human-centric approach there is no added value, just added technology.

According to Gartner's research into top technology trends, **Smart Spaces** combine the physical world and digital domain into a single conversation, they enhance society on a collective level and will be key to progress.

We are taking action with our creation of Smart Places. Defined by their openness, connectedness, co-ordination and intelligence, they are physical environments in which humans and technology-enabled systems interact seamlessly. Combined with mobility hubs they can create space designed specifically to house public and shared mobility modes and improve the public realm for local residents and businesses as well as travellers. Mobility hubs have many benefits including providing a more convenient, comfortable and safer environment to access a range of sustainable modes. Mobility hubs help to raise the profile of shared mobility services to boost utilisation and viability. In addition, they support low car lifestyles and the reallocation of space from car parking to housing or public realm improvements.

The concept has been applied to the streetscape in many European and North American cities. CoMoUK has created a new guidance document to provide an introduction to mobility hubs and to share best practice from partners. The document provides an outline of the potential component for mobility hubs in different contexts, case studies from across Europe and tips on implementation.

Case Studies

The small town of Bremen, Germany, is the site of the first mobility hubs in Europe, with more than a dozen "mobil.punkt" ("mobility point") mobility hubs in the early 2000s, which feature Cambio carshare vehicles and bikeshare parking at transit stops.

Also in Germany, in 2012, Offenburg kicked off a multimodal mobility initiative called "Einfach-Mobil," ("easy mobile") which included targeted mobility outreach and research as well as the installation of four Einfach-Mobil mobility stations. These mobility stations feature carshare and bikeshare along Offenburg's main transit stations, and payment and activation of these services are integrated through a single smartcard called the Einfach-Mobil card.

Milan, Italy, has installed 27 "Digital Islands" across the city with digital kiosks, Level 1 and Level 2 charging stations for public and private use (free to use for electric carsharing providers) and shared electric quadracycle parking and charging stations.

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Flow management: enabling greater accessibility and lower carbon emissions across networks

Transport authorities must keep our cities accessible and people moving without impacting safety and the environment to keep our towns and cities liveable. When traffic flows smoothly and efficiently, the benefits extend far beyond road users and can bring significant benefits in ensuring cleaner air in our cities.

Flow management involves the use of many applications to keep traffic flowing safely on today's busy networks. A key part of this, involves utilising open data from existing inductive loops, sensors, apps and cars with satellite navigation. By prioritising target groups, it is possible to give road managers the power to react swiftly, particularly when it comes to emergency services, public transport or cyclists.

Systems like *Flowtack* collate and analyse travel data in real-time, forecasting and optimising travel flows at the network level. This allows multi-modal traffic on roads to flow smoothly and efficiently, creating a greener, cleaner city with greater control for city authorities. And since it is a cloud-based software system, there are no costly and disruptive installation of major detection loops on the highway infrastructure. Whatever systems is used they should also be platform-agnostic so there is no risk of a vendor lock-in.

Case Studies

Across cities in the Netherlands and the UK, the results are clear; new real-time systems like Flowtack have improved accessibility and enhanced liveability at the same time. In the case of the city of Deventer in the Netherlands, there has already been a 40% reduction in the number of vehicles unnecessarily stopping at junctions with a corresponding reduction in CO_2 emissions by 7-18%.

| REDUCED EMISSIONS AND POLLUTION, LEADING TO A 7-18% REDUCTION IN CO2 | SEAMLESS FLOW OF TRAFFIC, MAKING A CITY MORE ACCESSIBLE | GREATER CONTROL TO ROAD AUTHORITIES AND CITY COUNCILS, FACILITATING POLICY DEVELOPMENTS | CREATE A CLEANER CITY WHERE IT'S MORE PLEASANT TO LIVE AND WORK |

In a recent study of three main corridors in Liverpool in the UK, research has shown that the benefit-to-cost ratios were as much as 3.47 times the level of investment required for Flowtack; in other words, the system provides almost £3.5 in network benefits for every £1 invested. This also showed that 17% of the roads account for 72% of the overall network delays so if Flowtack was implemented across all these congested links then the above benefits would increase by significant multiples and order of magnitude.

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Strategy and programmes

Decisive strategy in a turbulent world

Strategy and programmes

Decisive strategy in a turbulent world

The transition of our transport networks to a sustainable, safe, reliable and inclusive mobility system requires us to anticipate change and make choices today, which could have a huge impact on our towns and cities of tomorrow. Covid-19 has resulted in our towns and cities across the UK undergoing a huge paradigm change.

Crucial to transitioning out of this crisis is collaboration – bringing together urban and rural areas with decisive strategies to ultimately deliver a premium user experience when it comes to mobility.

Together, we must go beyond the traditional sectoral approach to explore aspects such as how local and regional governments deal with urban planning, how this contributes to the overall mobility transition, and how public and private sectors can better partner together in order to achieve a common goal.

In addition, this research has shown that technology is a key enabler to future mobility after the lockdown restrictions are lifted. But it is the people driving the change that will ultimately make it successful and sustainable. From long term transport policies and strategies to actionable programmes and roadmaps in the short term, we will need to work in close collaboration to revolutionise transport investments and strategies – all with the aim of creating the next generation mobility systems for the future.

The key will be ***public-private partnerships (PPP)***; to successfully implement the mobility policy framework identified in this research paper, we need to embrace new ways of working and utilise new technologies in order to lead that change. That requires a strong vision, excellent collaboration with a diverse group of stakeholders, focus and commitment amongst ourselves, and sometimes the need to defy convention and seek new ways of delivering mobility systems.
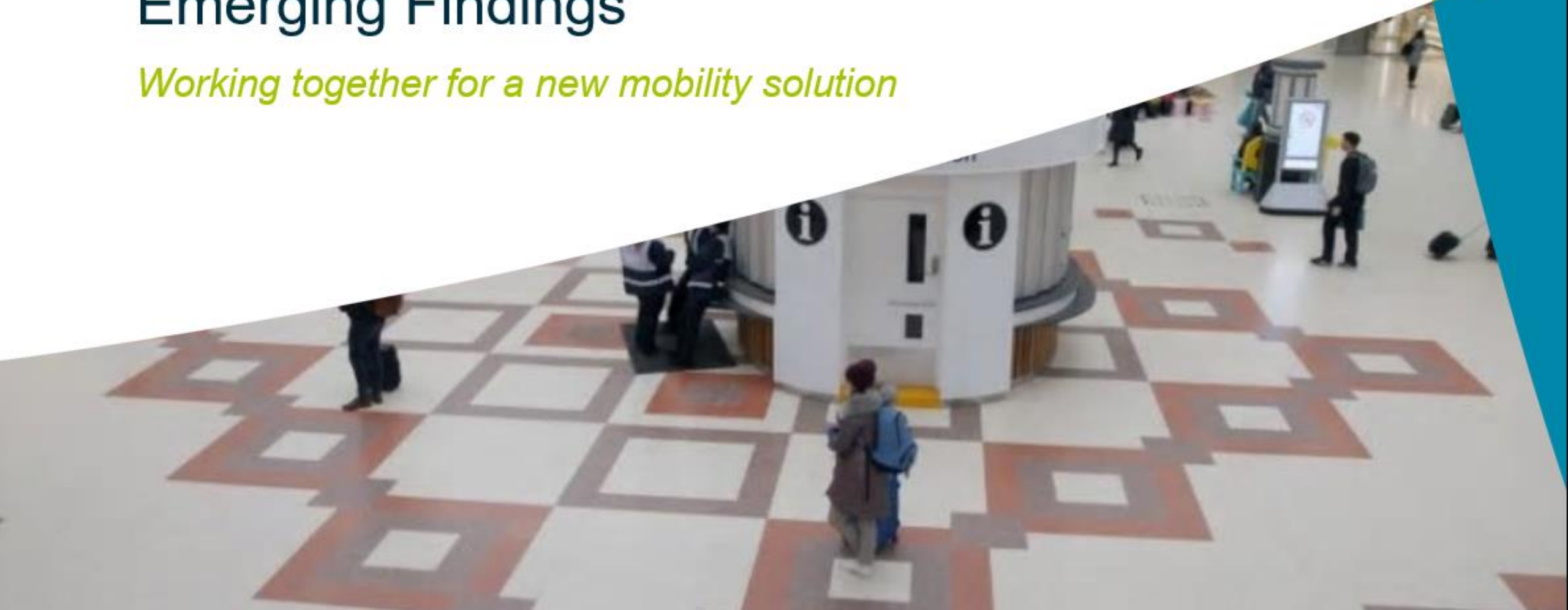
Case Studies

PPPs are no longer just for massive infrastructure projects but now often encompass modest-sized smart mobility systems for a variety of transport options including bicycle and car sharing, MaaS solutions, electric vehicle (EV) car clubs and bus transport schemes or fleet upgrades. For example, Salford City Council has been using PPP to deliver new cycling and bus infrastructure as part of its 20-year concession PPP road maintenance and street lighting programme, and is now looking to incorporate new on-street EV charging points as an add-on to the existing concession.

Furthermore, the methodology behind PPPs is spreading to pay for pioneering programmes known as 'social impact bonds' in which governments pay for success in delivery of social services. The innovative financing mechanism, first developed in the UK, allows impact investors - not governments or aid agencies - to provide the working capital to social and/or transport enterprises serving communities. The investors get repaid if social outcomes verifiably improve, as defined through a results-based contract with the sponsoring authority.

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Emerging Findings

Working together for a new mobility solution

Emerging Findings

Working together for a new mobility solution

A major finding from our analysis was that public transport has been hit hard by the Covid-19 lockdown, followed by walking and cycling. It was also noted that there is the risk of a potential increase in car trips, including potentially significant single-occupancy car journeys.

These dramatic changes have serious implications for sustainable travel including impacts to air quality and revenue support for public transport services.

As urban populations continue to grow, combined with the transition out of the Covid-19 lockdown, smart mobility measures need to be considered now to manage the flow of people in urban and rural areas to avoid putting extra stress on public spaces and infrastructure as well as cater for sustainable travel demands in a safe environment.

By combining domain knowledge, data science and service design, transport planners must transform insights into effective solutions which help manage Covid-19 impacts; and ultimately, revolutionise the way we travel.

This second research paper has set out a set of policy interventions which should be pursued across the UK to assist in the transition out of the lockdown and also provide a lasting legacy for the long-term.

This research has also shown that by connecting data to infrastructure, digital transport solutions can give valuable insight and control over travel demands to enhance comfort and enable safety on public transport, walking and safety. Modern technology can action data-driven travel management by identifying and predicting peaks, augmenting data with qualitative insights into human behaviour.

These benefits have been quantified in a case study looking at the city of Belfast. Under a multi-modal mobility strategy, socio-economic impacts significantly improve across the city as people move towards sustainable travel patterns and smart mobility. In particular, the implementation of electric vehicles (EV) and flow management techniques significantly reduces socio-economic impacts by making better use of existing assets and optimising road space allocations.

Using a combination of the measures presented in this second research paper will enable transport planners, operators and authorities to redress the imbalances caused by the Covid-19 crisis while also furthering the sustainability agenda.

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Regional Office Locations

With its headquarters in Amersfoort, The Netherlands, Royal HaskoningDHV is an independent, international project management, engineering and consultancy service provider. Ranking globally in the top 10 of independently owned, nonlisted companies and top 40 overall, the Company's 6,000 staff provide services across the world from more than 100 offices in over 35 countries.

Our connections
Innovation is a collaborative process, which is why Royal HaskoningDHV works in association with clients, project partners, universities, government agencies, NGOs and many other organisations to develop and introduce new ways of living and working to enhance society together, now and in the future.

Memberships
Royal HaskoningDHV is a member of the recognised engineering and environmental bodies in those countries where it has a permanent office base.

All Royal HaskoningDHV consultants, architects and engineers are members of their individual branch organisations in their various countries.

Integrity
Royal HaskoningDHV is the first and only engineering consultancy with ETHIC Intelligence anti-corruption certificate since 2010.

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Enhancing Society Together